

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
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Handwritten: RECEIVED
FEB 16 2011

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FEB 14 2011
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CANTOR COLBURN LLP

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT AND
THE WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)



Applicant's or agent's file reference INE0114PCT	Date of mailing (day/month/year) 08 FEBRUARY 2011 (08.02.2011)
International application No. PCT/US2010/039328	FOR FURTHER ACTION See paragraphs 1 and 4 below
Applicant INTERVENTIONAL THERAPIES et al	International filing date (day/month/year) 21 JUNE 2010 (21.06.2010)

- ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.
Filing of amendments and statement under Article 19:
The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):
When? The time limit for filing such amendments is normally two months from the date of transmittal of the international search report.
Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes
1211 Geneva 20, Switzerland, Facsimile No.: +41 22 338 82 70
For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004, 9.011.
- ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
- ☐ With regard to any protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
☐ the protest together with the decision thereon has been transmitted to the International Bureau together with any request to forward the texts of both the protest and the decision thereon to the designated Offices.
☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
- Reminders**
The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. Following the expiration of 30 months from the priority date, these comments will also be made available to the public.

Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90bis.1 and 90bis.3).

Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.
In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the PCT Applicant's Guide, National Chapters.

Name and mailing address of the ISA/KR  Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea	Authorized officer COMMISSIONER	
Facsimile No. 82-42-472-7140	Telephone No. 82-42-481-8754	

Form PCT/ISA/220 (July 2010)

* Attention

Copies of the documents cited in the international search report can be searched in the following Korean Intellectual Property Office English website for three months from the date of mailing of the international search report.

<http://www.kipo.go.kr/en/> => PCT Services => PCT Services

ID : PCT international application number

PW : 7XOYMRRS

Inquiries related to PCT International Search Report or Written Opinion prepared by KIPO as an International Searching Authority can be answered not only by KIPO but also through IPKC (Intellectual Property Korea Center), located in Vienna, VA, which functions as a PCT Help Desk for PCT applicants.

Homepage: <http://www.ipkcenter.com>

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference INE0114PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2010/039328	International filing date (<i>day/month/year</i>) 21 JUNE 2010 (21.06.2010)	(Earliest) Priority Date (<i>day/month/year</i>) 19 JUNE 2009 (19.06.2009)
Applicant INTERVENTIONAL THERAPIES et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 9 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report
 - a. With regard to the language, the international search was carried out on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.2(a) and 23.1(b))
 - b. ☐ This international search report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43.6b(a)).
 - c. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.
2. ☐ Certain claims were found unsearchable (See Box No. II)
3. ☒ Unity of invention is lacking (See Box No. III)
4. With regard to the title,
 - ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 - ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. With regard to the drawings,
 - a. the figure of the drawings to be published with the abstract is Figure No. 42D
 - ☒ as suggested by the applicant.
 - ☐ as selected by this Authority, because the applicant failed to suggest a figure.
 - ☐ as selected by this Authority, because this figure better characterizes the invention.
 - b. ☐ none of the figure is to be published with the abstract.

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Group 1: claim 1 relating to a kit comprising a cutting and crimping device, a ferrule, and a syringe

Group 2: claims 2-6 relating to a crimping and cutting device comprising a hammer head, a tip, and a hemostatic agent.

The common technical feature among groups 1-2 is readily derived from document US 5391183 A. Therefore, groups 1-2 do not have any common special technical feature over the prior art, thereby resulting in lack of unity of invention (PCT Rule 13.1, 13.2).

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

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A. CLASSIFICATION OF SUBJECT MATTER

A61B 17/04(2006.01); A61B 17/076(2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61B 17/04; A61B 17/10; A61B 17/00; A61B 17/08; A61D 1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: hemostatic

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5391183 A (ERNST JANZEN et al.) 21 February 1995 See column 3, line 58 - column 10, line 15 and figures 1-23	1
A	US 6048358 A (SHELOM BARAK) 11 April 2000 See the abstract and figures 1A-22	1-6
A	US 2003-0040760 A1 (OLEXANDER HNOJEVYJ et al.) 27 February 2003 See the abstract and figures 1-30	1-6
A	US 5306280 A (MICHAEL BREGEN et al.) 26 April 1994 See the abstract and figures 1-6	1-6
A	US 2004-0068272 A1 (JUDE S. SAUER et al.) 08 April 2004 See the abstract and figures 1-18	1-6



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

28 JANUARY 2011 (28.01.2011)

Date of mailing of the international search report

08 FEBRUARY 2011 (08.02.2011)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu,
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Authorized officer

JEONG, Kyu Young

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INTERNATIONAL SEARCH REPORT
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US 2004-0068272 A1	08.04.2004	US 2004-068272 A1	08.04.2004
		US 6641592 B1	04.11.2003

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

BEDINGFIELD HERBERT M.

CANTOR COLBURN LLP 20 CHURCH ST., 22ND
HARTFORD CT 06103-3207 USA

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 08 FEBRUARY 2011 (08.02.2011)

Applicant's or agent's file reference
INE0114PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/US2010/039328

International filing date (day/month/year)
21 JUNE 2010 (21.06.2010)

Priority date(day/month/year)
19 JUNE 2009 (19.06.2009)

International Patent Classification (IPC) or both national classification and IPC

A61B 17/04(2006.01), A61B 17/076(2006.01)

Applicant

INTERVENTIONAL THERAPIES et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR
Korean Intellectual Property Office
Government Complex-Daejeon, 139
Seonsa-ro, Seo-gu, Daejeon 302
-701, Republic of Korea
Facsimile No. 82-42-472-7140

Date of completion of this opinion
28 JANUARY 2011 (28.01.2011)

Authorized officer
JEONG, Kyu Young
Telephone No.042 481 8124



WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US2010/039328

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

2. ☐ This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established on the basis of:

- a. a sequence listing filed or furnished

- ☐ on paper
☐ in electronic form

- b. time of filing or furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in electronic form.
☐ furnished subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
- ☐ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:

The present application includes multiple groups of inventions as follows:

Group 1: claim 1 relating to a kit comprising a cutting and crimping device, a ferrule, and a syringe

Group 2: claims 2-6 relating to a crimping and cutting device comprising a hammer head, a tip, and a hemostatic agent.

The common technical feature among groups 1-2 is readily derived from document US 5391183 A. Therefore, groups 1-2 do not have any common special technical feature over the prior art, thereby resulting in lack of unity of invention. (PCT Rule 13.1, 13.2).

4. Consequently, this opinion has been established in respect of the following parts of the international application:

☒ all parts.

☐ the parts relating to claims Nos. _____

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. V Reasoned statement under Rule 43bis,1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-6	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	2-6	YES
	Claims	1	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims	NONE	NO

2. Citations and explanations :

Reference is made to the following documents:

D1: US 5391183 A (ERNST JANZEN et al.) 21 February 1995
D2: US 6048358 A (SHLOMO BARAK) 11 April 2000
D3: US 2003-0040760 A1 (OLEXANDER HNOJEWYJ et al.) 27 February 2003
D4: US 5306280 A (MICHAEL BREGEN et al.) 26 April 1994
D5: US 2004-0068272 A1 (JUDE S. SAUER et al.) 08 April 2004

1. Novelty

The technical features of claims 1-6 are different from those of the device described in D1-D5. Therefore, the subject matters of claims 1-6 are considered to be novel. (PCT Article 33(2))

2. Inventive Step

The cutting and crimping device, the syringe of claim 1 can be readily derived from the insertion apparatus(59) and the plug leg(63) in D1, the ferrule of claim 1 is merely design changes which can be readily applied by a person skilled in the art, and there is no particular difference in the effect of the corresponding feature. Accordingly, claim 1 would have been obvious over D1. Therefore, claim 1 lacks an inventive step under PCT Article 33(3).

The technical features of the hammer head and the tip in claim 2 are not shown in D1-D5, and have a particular effect. Accordingly, claim 2 was not anticipated by the prior art, nor would have been obvious to a person skilled in the art. Therefore, claim 2 involves an inventive step under PCT Article 33(3).

Claims 3-6 are directly or indirectly dependent on claim 2. Therefore, claims 3-6 are also considered to involve an inventive step under PCT Article 33(3).

3. Industrial Applicability

Claims 1-6 are industrially applicable under PCT Article 33(4).

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

It is not clear which feature is meant by "said operative section" and "said bore" in claim 1, because claim 1 does not mention any "operative section" and "bore".(PCT Article 6).